



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,238	05/17/2005	Shunji Onobori	2005_0815A	5640

513 7590 01/04/2007  
WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER
----------

ARBES, CARL J

ART UNIT	PAPER NUMBER
----------	--------------

3729

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/535,238

Applicant(s)

ONOBORI ET AL.

Examiner

C. J. Arbes

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date herein.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3729

Claim 7-9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 7 and 8 Applicants recite ... a first retreat height position higher than the first height position ..., ..., and a second retreat height position higher than the second height position. It is far from clear what Applicants are intending by this language and therefore Applicants are well advised to clearly demark to the Office the portion of the Specification which discloses what is meant thereby or carefully by drawings, or other documents identify and clearly describe what Applicants mean by this language. As applied to Claim 9 it is held not to further limit or define the claim from which it depends. Perhaps Applicant can explain how a claim directed to a **component mounting apparatus** (in claim 9 further limits in any sense a claim that recites a **substrate transportation apparatus** in claim 1) Perhaps the Office is providing the improper rejection. Perhaps the rejection should be lack of relevance between claim 9 and claim 1 (claim 9's antecedent). At any rate claim 9 is held to be unclear, vague and indefinite and should be either amended in conformity with claim 1 or deleted entirely.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barringer et al.

Art Unit: 3729

Barringer et al teach a substrate transportation apparatus. The apparatus includes a first transport system for moving frames which frame is configured to hold a flexible substrate, a loading station whereat individual substrates are loaded onto the frames, a testing station whereat electrical tests are applied and an unloading station whereat the substrates are removed from the frames. At the testing station the frames are disengaged from the first transport system and fastened to the second transport system. (Cf. Abstract) At the test station (according to the Prior Art teaching in Column 7) a frame is disengaged from the first transport carriage and placed into a second of test transport carriage. This carriage is subsequently used to transport the frame in both a horizontal and vertical direction (Cf. Col. 8) so as to permit testing of the circuit substrate. In Column 11 the prior art is clear that since the testing of the substrate is generally longer than the time that it takes to load the substrates, the driving means for the substrates will generally begin sooner than the driving means what are used in the testing station and unloading station. It is old to mount a plurality of components on substrates (Cf. e.g. Pat. No 6,720,195 B2, in the Col. 3 and Figure 1) As applied to claims 4, 5 and 12 it is held that it would have been obvious to a PHOSITA to switch speed or to accelerate depending on the condition of the substrate discharge holder inasmuch as Barringer et al is aware that there is or can be differences in the time that it takes to e.g. load, test and unload a substrate. As applied to claim 6 it would have been obvious to provide that the height of the 2<sup>nd</sup> and 4<sup>th</sup> substrate positions i.e. where the substrate is unloaded off the 1<sup>st</sup> conveyor and where it is unloaded off the 2<sup>nd</sup> conveyor to be the same. Alternatively it is held that this limitation is design choice inasmuch as


Art Unit: 3729

there is no articulated or particular purpose therefore or is there any specific problem solved thereby. As applied to claim 7 wherein Applicants recite a limitation such as ..., a first retreat height position higher than the first height position, ..., ...a second retreat height position higher than the second height position.... It is held that a PHOSITA without undue skill, given the prior art will provide a feed elevation unit and a discharge elevation unit which would cause the substrate feed holder to be positioned as recited in said claim 7. As further applied to claim 8 it is held to have been obvious that in order to implement the heights recited in said claim 7 a PHOSITA would use 2 different cylinder sections which had different strokes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. J. Arbes whose telephone number is 571-272-4563. The examiner can normally be reached on M, T, R and F from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Vo, can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**CARL J. ARBES**  
**PRIMARY EXAMINER**